AN INFLUX.

Undoubtedly there will be a large increase in the number of physicians in California in the next few years. The taking down of the bars has already begun, and in spite of the best that it can do, the new board under the new law will be forced to license a considerable number of poorly qualified physicians. We will be wise to discount that condition in advance and prepare for it. It seems to be the desire of the people to permit almost anyone who may desire to do so, to practice the healing art. How, then, may we furnish some index to those of more intelligence who really wish to secure the services of a qualified physician and not a poorly educated one or a pretender? It would seem that this can only be done through our county units; membership in a county medical society must become a badge of quality—a "hall mark," as it were. Under the recent change in organization, every member of a county society is a member of the American Medical Association and is entitled to wear the badge of the Association. That in itself is an indication of some standing, and if our county units will pursue a policy of careful discrimination in the election of members, in a very few years that badge of membership will entirely take the place of a license to practice in the eyes of the better and more nearly thinking element of the community. The "drugless healer" of any sort is to receive legal recognition and the people cannot discriminate from mere names; they can be taught, however, that membership in a county medical society means something; and they can be taught that the physician who is entitled to wear the A. M. A. badge, thus showing that he is a member of his county society, is a physician who can be trusted to be something better than a licensed quack.

A SAMPLE LETTER.

Referring again, for a moment, to the circulation of the JOURNAL and the fact that subscriptions come in voluntarily and because of the influence and the character of the publication and not from coaxing agents, etc., it is a pleasure to quote the following paragraph from the letter of a physician in Minnesota:

"I have never been invited to subscribe for your JOURNAL, and while perhaps I have not felt slighted, I have seen a copy or two of it lately and have made up my mind that no doctor's shop is complete without it, so I enclose herewith check for $1.00, which I believe is the established price, and respectfully request that you cause my name to be placed on the subscription list."

There is a whole lot more satisfaction in getting one letter and subscription like that, that to get fifty impersonal subscriptions from agents or the like. And this is not the only letter of its kind.

HOW FAR SHALL PROTECTION GO?

In a letter received some time ago, from a physician practicing in one of the smaller towns, occur some words of protest against certain portions of our principles of ethics. One may not entirely agree with the writer—and another may; at the least, there is ample food for thought upon the points raised, and therefore we take pleasure in presenting this physician's views and would be glad to receive the expression of opinion of others of our members.

"We also need and should obtain absolution from some of the ancient, hide-bound, poppy-cock, impossible, unattainable ideals of the code of ethics."

"Chapter I, Section I, says, reward or financial gain should be a subordinate consideration. Financial reward should go hand in hand with the services rendered to humanity. Humanity don't appreciate such a lofty ideal, but it does take advantage of it by failing, neglecting and refusing to pay for services rendered, and even in some instances demands, and endeavors to compel, services for which they never expect to pay one cent."

"Article III, duties of physicians in consultation. Yes, certainly, shield your brother physician when he is right or honestly mistaken and is trying to do his best, but how about the drunken, besotted brother who is so pickled in barley-corn juice, or so comatose from morphia or other drugs, and as often is the case, so densely ignorant and careless that the patient's life is in jeopardy and often lost? Yes, I mean lost, for I have personally witnessed the departure by reason of attendance by such a brother physician (?). The code says protect him, lest the criticism (or whatever it might be) react against the critic. Very well, Mr. Code, right there we part company. I don't protect gross ignorance and criminal neglect and grossly intemperate habits, even if they are under cover of the magic letters M. D. *We* should proceed to set our house in order, keep it so, and surround it with safeguards that will make it secure against evil criticism and successful attack by the public."

PUBLIC HEALTH NUMBER.

An early issue—probably January—will be devoted to a very good collection of papers on public health subjects which were read at the recent meeting at Venice. Dr. Sawyer and Dr. Force were good enough to collect the papers and prepare a general report of the meeting. There will also be some editorial comment on the subject and the number should be of great interest; many of the questions discussed are most timely and have brought concretely to our attention public health problems of the greatest importance to the people of California.

THE INJECTION OF CONCENTRATED SOLUTIONS OF 606 AND 914.

One of the great drawbacks to the use of the newer arsenical preparations discovered by Erlich has been the difficulty attending the proper preparation of the solution to be injected. A rather complicated technic is employed, special apparatus is used by most men, and great care is essential in the exact neutralization of the otherwise acid salvarsan solution. In a large number of cases, the toxic reaction following the injection of salvarsan or of neosalvarsan has been attributed to the water in which the drug was dissolved. Many clinicians

strongly object to the use of freshly boiled tap water which, according to the directions accompanying each package of neosalvarsan, is permitted "if the water is practically free from bacteria and does not contain too large a quantity of mineral salts." In fact, some have gone so far as to insist upon the water being twice distilled in apparatus made entirely of Jena glass.

During the slow infusion of the dilute neosalvarsan solutions it was found that oxidation of the drug occasionally occurred and caused unpleasant symptoms. It was furthermore noted that this took place more rapidly with salt solutions, but the danger of hemolysis rendered the infusions of large amounts of distilled water too hazardous a procedure to warrant their employment.

The drug having therefore been exonerated of the charge of causing all the disastrous consequences following the use of 606 and of 914, and the water itself having been accused, tried, and so often found guilty, it is quite logical to find clinicians attempting the injection of both the old and new salvarsan in concentrated solution, thus minimizing the dangers from the so-called bacterial and chemical "water errors."

Thus it happened that almost simultaneously did Ravaut of Paris and Duhot of Brussels begin the intravenous injections of concentrated solutions of neosalvarsan, Duhot's reports being published a short time ahead of Ravaut's. Shortly afterward this method was adopted by Stern, Strauss and Zumbusch, the article by Stern—based on over 1000 injections—being the one which drew the writer to try out the method.

The technic employed, practically that of Stern, is as follows: 50 cc. of tap water or ordinary distilled water such as employed for laboratory use, is boiled for 5 minutes in an Erlenmeyer flask, closed with a pledget of cotton; this is allowed to cool or, if in a hurry, cooled under the faucet before use. A 10 cc. Record syringe is either boiled or cleaned with alcohol or ether and air dried, and into it is then poured 5 to 8 cc. of the water, the end of the syringe being closed with the finger. The ampoule having been filed and broken, the salt is dropped into the syringe, the piston inserted, and the syringe shaken until the salt is dissolved, which takes but a few seconds. Care must be taken to avoid glass splinters getting into the syringe. (Duhot has devised an ingenious syringe to offset such a possibility.) The injection is made in the vein at the bend of the elbow, the technic being that of an ordinary intravenous injection, with the difference that it should take place more slowly. Properly executed there should be no pain at all, i. e., if the injection be *intra*venous. It is wise to draw up a few drops of blood into the syringe before withdrawing it, lest some of the solution in the needle leak into the tissue. If, however, this should happen, pain may be severe enough to require compresses or narcotic drugs; ulceration has never occurred.

We have employed this method since September 12th, with the greatest satisfaction to ourselves and to the patients, who naturally prefer this to the tedious infusion method. The number injected is small, due to lack of suitable material, but we mention it to encourage others to try the method, as most of the confrères to whom we have already suggested it considered it *a priori* a risky thing to do, only two of them so far as we know having adopted it.

Stern advocated and used concentrated salvarsan solutions as well as those of the neosalvarsan. The technic here simply requires preliminary neutralization with 15% NaOH, using if desired a drop of 10% phenolpthalein to indicate the exact point.

Zimmern employed the concentrated salvarsan solutions, but was unable to avoid fever, vomiting and pain in the region of the vein, and returned to the infusion.

We are therefore more than pleased to find that at last Dreyfus* (than whom there is no more conservative user of salvarsan, and who has had the advantages of a large experience in Frankfort, in more or less intimate contact with Erlich), has declared himself in favor of the concentrated solutions (not quite so concentrated as Stern's, however). We would urge everyone to read his article —wherein can be found references to the other articles—and will here only reproduce a few of his conclusions:

The injection of concentrated salvarsan solutions with a syringe (0.1-0.5 grams dissolved in about 30 cc. twice distilled water) offers a series of advantages over the former infusion method with large amounts of fluid (150-250 cc.).

The number of subjective and objective reactions is smaller than with the use of large amounts of fluid.

A properly conducted salvarsan cure consists of 12-15 injections (inside of several weeks). The work imposed on the circulatory system is undoubtedly less with the injection of smaller amounts.

According to Zimmern's results, salvarsan is retained longer in the body when the concentrated solution is used, the larger amounts of fluid apparently stimulating diuresis and arsenic elimination.

With the concentrated salvarsan injection one can dispense with salt solution, using only twice distilled water. This not only simplifies the technic but does away with one possibility of serious contamination.

The glassware is sterilized by 20 minutes' boiling, preferably in distilled water, thus doing away with the time consuming and complicated dry sterilization.

The action on the kidney is the same whether the concentrated or dilute solution be employed. In the presence of manifest nephritis if salvarsan be used at all it should not be in the concentrated form.

In syphilitic disease of the circulatory organs, very small doses of salvarsan, or even better neosalvarsan, are recommended, both, however, in the concentrated solutions.

The only possible drawback to this method, according to Dreyfus, is that the technic *must* be perfectly carried out. RENÉ BINE.

* Muench. med. Wochenschr., No. 42, 723-733, 1913.